

Flexible Generation Ltd

27-28 Eastcastle Street

London

W1W 8DH

Flexible Generation Ltd MCPD Emissions Monitoring Report

Please find attached the emissions monitoring for permit number PAN-005837 located at Pentref Y Groes, Croespenmaen, Crumlin, Newport, NP11 3BT.

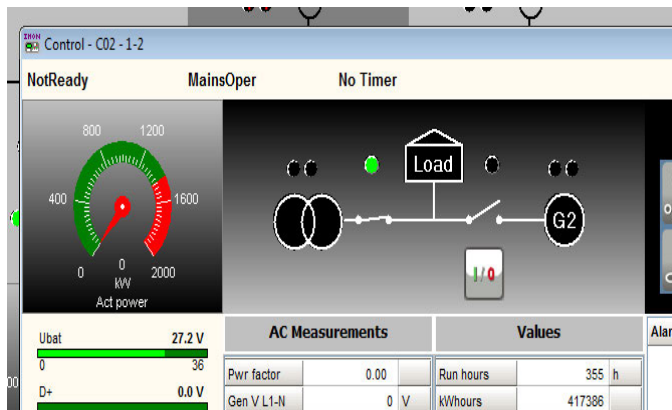
As per Table S4.1 from our permit, the plant operates for less than 500 hours per year, we are therefore submitting within the 5 year period stipulated.

The permitted plant is a low-risk plant, currently operating <20 hours per year since being permitted. Total Engine run hours as of 21/11/2024 are shown below:

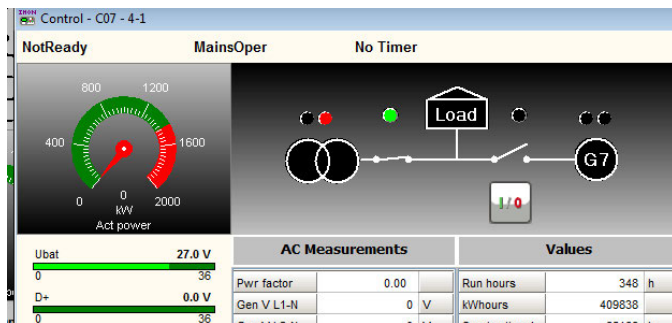
Generator 1	Offline
Generator 2	335 hours
Generator 3	341 hours
Generator 4	327 hours
Generator 5	337 hours
Generator 6	350 hours
Generator 7	348 hours
Generator 8	333 hours
Generator 9	359 hours
Generator 10	348 hours
Generator 11	340 hours
Generator 12	375 hours
Generator 13	390 hours
Generator 14	351 hours

Example generator run hours from plants digital interface:

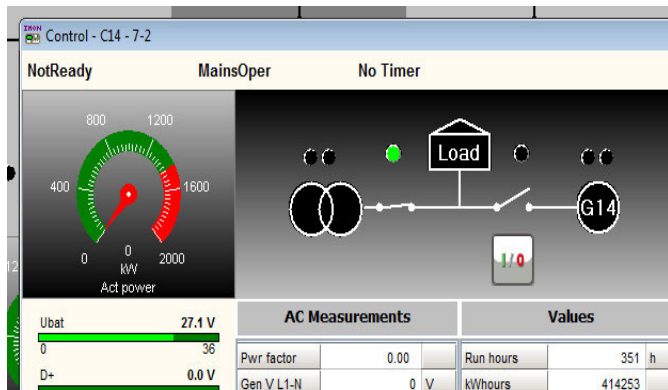
Generator 2



Generator 7



Generator 14



SCR Test & Validation



Gen Rating

1875 kVA @ Flexible Generation Ltd

Generator ID:




Crumlin A&B

TARGET Less than 158PPMv

%	GEN		AdBLue ml/min or l/hr	Temp °C	O ₂ %	NO PPMv	NO ₂ PPMv	NOx PPMv	CO PPMv	CO ₂ %
	Ref	LOAD kWe								
100%	EX	1420 kWe	28.0 l/hr	400.1	10.76	150	0.4	150.4	173	7.63
100%	A1	1420 kWe	0.00 l/hr	0.0	Engine Off-line - Down for Maintenance Failure - Awaiting Perkins Components					
100%	A2	1420 kWe	22.50 l/hr	372.2	11.06	127	0	127	148	7.37
100%	A3	1420 kWe	22.50 l/hr	388.6	10.90	87	0.1	87.1	189	7.49%
100%	A4	1420 kWe	22.50 l/hr	439.9	9.75	128	0.2	128.2	328	8.33%
100%	A5	1420 kWe	22.50 l/hr	402.0	10.29	107	0.1	107.1	234	7.94%
100%	A6	1420 kWe	22.50 l/hr	404.0	10.78	155	0.7	155.7	192	7.58%
100%	A7	1420 kWe	22.50 l/hr	392.2	10.67	61	0.4	61.4	200	7.66%
100%	A8	1420 kWe	22.50 l/hr	407.1	10.35	108	0.2	108.2	219	7.90%
100%	A9	1420 kWe	22.50 l/hr	349.2	10.83	156	0.7	156.7	219	7.52%
100%	A10	1420 kWe	22.50 l/hr	420.5	10.93	104	0.2	104.2	163	7.47%
100%	A11	1420 kWe	22.50 l/hr	404.2	10.67	103	0	103	193	7.67%
100%	A12	1420 kWe	22.50 l/hr	385.4	11.04	105	0	105	161	7.38%
100%	A13	1420 kWe	22.50 l/hr	407.4	10.24	89	0	89	249	7.98%
100%	A14	1420 kWe	22.50 l/hr	400.3	10.32	85	0	85	225	7.92%

Date: 19th Nov 2024
Test Personnel: [REDACTED]

Key: Input Data
Resultant

  					MCPD		Reference Data Check			
Correction to mg/Nm ³ (@ Measured O ₂)					Compare to MCPD (Assuming all converted to NO ₂)		Compare to Engine Data as TA Luft			
GEN	NO	NO ₂	NO _x	CO	LOAD	NO _x @ 15% O ₂	AdBlue	NO _x @ 5% O ₂	CO @ 5% O ₂	
Ref	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	kWe	mg/Nm ³	ml/min or l/hr	mg/Nm ³	mg/Nm ³	
EX	201	0.82144	201.82144	138.3557262	1420 kWe	179.7	28.0 l/hr	316.5	216.9	
A1	0	0.00	0.00	0.00	1420 kWe	Off-Line	0.00 l/hr	N/A	N/A	
A2	170.18	0.00	170.18	118.36	1420 kWe	156.4	22.50 l/hr	275.0	191.3	
A3	116.58	0.21	116.79	151.15	1420 kWe	105.5	22.50 l/hr	185.7	240.3	
A4	171.52	0.41	171.93	262.32	1420 kWe	139.3	22.50 l/hr	245.2	374.1	
A5	143.38	0.21	143.59	187.14	1420 kWe	122.3	22.50 l/hr	215.2	280.4	
A6	207.7	1.44	209.14	153.55	1420 kWe	186.4	22.50 l/hr	328.6	241.3	
A7	81.74	0.82	82.56	159.95	1420 kWe	72.7	22.50 l/hr	128.3	248.6	
A8	144.72	0.41	145.13	175.14	1420 kWe	124.3	22.50 l/hr	218.7	264.0	
A9	209.04	1.44	210.48	175.14	1420 kWe	188.5	22.50 l/hr	332.3	276.5	
A10	139.36	0.41	139.77	130.36	1420 kWe	126.6	22.50 l/hr	222.9	207.9	
A11	138.02	0.00	138.02	154.35	1420 kWe	122.0	22.50 l/hr	214.5	239.9	
A12	140.7	0.00	140.70	128.76	1420 kWe	129.0	22.50 l/hr	226.9	207.6	
A13	119.26	0.00	119.26	199.14	1420 kWe	101.2	22.50 l/hr	177.9	297.0	
A14	113.9	0.00	113.90	179.94	1420 kWe	97.3	22.50 l/hr	171.2	270.4	
					Average NO _x Level for Treated Emissions		128.6	Percentage NO _x Reduction: 88.5%		



24153716

CERTIFICATE OF CALIBRATION

Issued by

TESTO LIMITED

DATE OF ISSUE 25 October 2024 CERTIFICATE NUMBER 24153716 PAGE 1 OF 2

Testo Limited
Newman Lane
Alton
Hampshire
GU34 2QJTel: 01420 544433
Fax: 01420 544419
Email: service@testo.co.uk
Web: www.testo.co.uk


Customer name	Ashtead Technology Ltd
Customer order number	N/A
Testo reference	24153716
Date of calibration	25 October 2024
Date of next calibration	25 October 2025
Description Probe Type	Combustion analyser with probe 0600 9766
Manufacturer	Testo
Model number	350 hand unit with 350 base unit
Serial number	Measuring box: 60324570, hand unit: 6037564
Customer reference	Unmarked

Certified that the above system / instrument detailed hereon has been calibrated in accordance with the conditions and requirements of the contract or purchase order and unless otherwise noted above, conforms in all respects to the records relevant thereto.

This calibration was carried out in accordance with the requirements contained in the Companies independently accredited ISO9001:2015 quality system.

The above system has been calibrated, by comparison against values traceable back to National and International Standards.

The ambient condition in the laboratory at the time of testing were $22\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$, and less than 80 % relative humidity.

Calibrated By: 

CERTIFICATE OF CALIBRATION

CERTIFICATE NUMBER 24153716

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RESULTS

Parameter	Reference Certificate	Reference Value	Measured Value
Flue Temperature (°C)	UT8050	148.7	147
Pressure (hPa)	UP0475	0.0	0
		20.0	20.1
		50.0	50.2
Oxygen (%)	D727631 3422	0.00	0.02
		5.13	5.12
Carbon Monoxide (ppm)	3422 3815B D727631	20	22
		102	106
		703	705
Nitric Oxide (ppm)	3815B	152.4	153
Sulphur dioxide (ppm)	4039	100.8	103
Nitrogen dioxide (ppm)	VC2960	102.6	101.1
Carbon Dioxide	5884649	24.99	NOT FITTED
Methane (ppm)	VC7751868	25000	24700

The overall uncertainty of the measurements was estimated not to exceed:

- ± 0.1% for O₂ + instrument resolution
- ± 6% rdg. for all other gases + instruments resolution
- ± 0.3 °C for temperature + instrument resolution
- ± 0.3 hPa for pressure + instrument resolution

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95%.

End of report.